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09/360,262	07/26/1999	BRUCE K. REDDING JR.	DFG1004.5-US	3912

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EXAMINER

BECKER, DREW E

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1761

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Paper No. 21

Application Number: 09/360,262  
Filing Date: July 26, 1999  
Appellant(s): REDDING ET AL.

\_\_\_\_\_  
Joshua R. Slavitt  
For Appellant

EXAMINER'S ANSWER

**MAILED**  
FEB 27 2003  
**GROUP 1700**

This is in response to the supplemental appeal brief filed December 9, 2002.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 1, 3-13, and 15-18 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

5,455,342

REDDING JR

10-1995

Brandrup, J. and Immergut, E.H. "POLYMER HANDBOOK" Third Edition, 1989, pp. 128-129 & 399-402.

Fennema, Owen R. "FOOD CHEMISTRY" Third Edition, 1996, pp. 205-207 & 218-220.

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 3-4, 6-7, 9, 15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Redding Jr [Pat. No. 5,455,342].

Redding Jr teaches a method of treating polymers by dispersing the particulate polymer in a liquid (column 3, lines 3-11), applying an abrupt pressure change to the dispersion with a piston (column 3, lines 12-16), mechanical action (column 5, lines 50-66), recovering the treated polymers in a collection vessel (column 6, line 61), drying at 40°C (column 9, line 66), the pressure treatment occurring at ambient temperature (column 8, line 25), modifying the water and oil holding properties of the polymers including disintegration and solubility, thermal profile, turbidity profile, and viscosity (column 7, lines 1-12), and the polymers including dietary fibers such as bark, starches, carboxymethylcellulose, lignin, methylcellulose, corn zein, proteins and other natural polymers listed in the Polymer Handbook (column 14, Tables V-VI). Regarding the phrase "modifying the water and oil holding capacities" of claim 1, these are inherent features of the process of Redding Jr since the same the material is used, it undergoes the same process steps, and since Redding Jr already mentioned modifying the water and oil holding properties of the polymers including disintegration and solubility, thermal profile, turbidity profile, and viscosity (column 7, lines 1-12). The method steps utilized in the reference are the same as those instantly claimed, and thus the same results would also have been expected. The claimed characteristic of "modifying the water and oil holding capacities" is considered an inherent property and result of the referenced method, and not unique to the instant invention, absent any clear and convincing evidence or arguments to the contrary on the record.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 8, and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redding Jr.

Redding Jr teaches the above mentioned concepts as well as operating the air piston at 60-90 psi (column 8, line 13) and modified properties such as a raised melting point, and altered viscosity and solubility (column 7, lines 1-12). Redding Jr does not recite a particulate amount of 10-25%, a drying temperature of 70°C, and treatment time of 01-0.2 seconds. However, although Redding Jr does not mention the specific amount of particulate used, it would have been obvious to one of ordinary skill in the art to use the above treatment time and amount of particulate with Redding Jr since these parameters would have been used during the course of normal experimentation and optimization, since the treatment time and amount of particulate used would have been dependent upon a multitude of factors such as the type of material treated, the type of liquid media used, the size and makeup of the material, and the pressure level to name but a few; since Redding Jr only provided a couple samples of treatment times for one specific example, rather than a range of possible treatment times (column 8, lines 10-20), and since Redding Jr also taught a treatment time of 0.53 seconds (column 8, line 18) which would have produced the same effect as the shorter treatment time of the applicant. It

would have been obvious to one of ordinary skill in the art to dry the modified fiber of Redding Jr at a temperature of 70°C since Redding Jr already teaches drying at 40°C (column 9, line 66), since drying was commonly undertaken at this higher temperature, and since a higher temperature would have provided faster drying and thus improved the production rate of the treated material. Regarding the "increase in total dietary fiber content" of claim 13, this would have been an inherent property of the process of Redding Jr since the same method steps and materials were used and since Redding Jr teaches an extended treatment time which would have produced the same effects. Furthermore, the recitation of an "increase in total dietary fiber content" found in the preamble does not impart patentable weight to the instant claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

5. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redding Jr in view of The Polymer Handbook.

Redding Jr teaches the above mentioned concepts. Redding Jr does not specifically recite the use of cellulose. However, Redding Jr does teach the use of bark which is primarily made of cellulose. The Polymer Handbook listed cellulose, which is found in plant material, as a natural polymer (page 399). It would have been obvious to one of ordinary skill in the art to incorporate the cellulose of The Polymer Handbook into the

invention Redding Jr since Redding Jr specifically included all natural polymers listed by The Polymer Handbook (column 14, line 56), since The Polymer Handbook listed cellulose as a natural polymer (page 399), and since Redding Jr teaches the use of bark, which was made up of a high percentage of cellulose, as well as cellulose derivatives such as carboxymethylcellulose, ethylcellulose, nitrocellulose, methylcellulose, and propylhydroxycellulose (column 14, Table VI). The method steps utilized in the reference are the same as those instantly claimed, and thus the same results would also have been expected. The claimed characteristic of reducing "the water holding capacity and oil retention properties" is considered an inherent property and result of the referenced method, and not unique to the instant invention, absent any clear and convincing evidence or arguments to the contrary on the record. Regardless, the recitation of "the water holding capacity and oil retention properties" found in the preamble, does not impart patentable weight to the instant claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

6. Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redding Jr as applied above, in view of Fennema [FOOD CHEMISTRY].

Redding Jr teaches the above mentioned concepts as well as altering the solubility and disintegration properties of the pressure treated material (column 7, line 5). Redding Jr



does not teach the use of oat hull. Fennema teaches that oat bran (or hull) was a good source of dietary fiber (page 218). It would have been obvious to one of ordinary skill in the art to include the oat bran of Fennema into the invention of Redding Jr since Redding Jr teaches the pressure modification of natural polymers (column 14, line 22), since Fennema teaches that dietary fibers, such as oat bran, were natural polymers as well (page 218), since oat bran was largely made up of cellulose, and since Redding Jr teaches the pressure treatment of many cellulose derivatives (column 14, Table VI). Regarding the "modifying the water and oil holding capacities" of claim 11, Redding Jr already mentioned modifying the water and oil holding properties of the polymers including disintegration and solubility, thermal profile, turbidity profile, and viscosity (column 7, lines 1-12). Regardless, the recitation of "modifying the water and oil holding capacities" found in the preamble, does not impart patentable weight to the instant claims. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

**(11) Response to Argument**

Appellants argue that Redding Jr does not teach "particulate dietary fiber". However, Redding Jr specifically teaches the pressure treatment of various different

materials including dietary fibers such as bark, starches, carboxymethylcellulose, kraft lignin, methylcellulose, corn zein (a protein found in corn), proteins in general, and other natural polymers listed in the Polymer Handbook (column 14, Tables V-VI). In addition, appellants dependent claim 18 provides specific examples of the natural grain and wood products of parent claim 1 including: high protein, powdered cellulose, corn fiber, sodium carboxymethylcellulose, and microcrystalline cellulose. These listed examples of the appellant directly correlate to the specific materials of Redding Jr including corn zein, bark, and carboxymethylcellulose. The commonly accepted definition of dietary fiber is simply nondigestible polymers as taught by Fennema (page 218). Fennema specifically teaches that "Dietary fiber is not necessarily fibrous in nature. Dietary fiber is a nutritional term that has nothing to do with its physical or chemical nature" (page 218).

Appellants argue that Redding Jr does not teach treating dietary fiber to modify the water/oil holding properties. However, Redding Jr specifically teaches that many changes in physical properties occur including, but not limited to: altered disintegration and solubility properties, altered viscosity profile, and an altered thermal profile (column 7, lines 1-12). Modifying the water and oil holding capacities was an inherent feature of the process of Redding Jr since the same the materials were used, they underwent the same processing steps, and since Redding Jr already mentioned modifying physical properties of the materials. Further, the method steps utilized in Redding Jr are the same as those instantly claimed, and thus the same results would also have been expected. The claimed characteristic of "modifying the water and oil holding capacities" is considered an inherent property and result of the referenced method, and not unique


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to the instant invention, absent any clear and convincing evidence or arguments to the contrary on the record.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,


Drew E Becker  
Examiner  
Art Unit 1761

  
February 24, 2003

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